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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,477	07/29/2003	Takahiro Aoki	1614.1351	4692

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EXAMINER

LIEW, ALEX KOK SOON

ART UNIT PAPER NUMBER

2624

DATE MAILED: 11/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/628,477	Applicant(s) AOKI ET AL.	
	Examiner Alex Liew	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 – 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pavidis (US pat no 6,370,260) in view of O'Meara (US pat no 3,544,771).

With regards to claim 1, Pavidis discloses an image extraction method comprising

- a first image pickup step to pick up an image of an object positioned in front of a background using wavelengths in a visible light region (see col. 4 lines 20 – 24 and fig 1 – 12 – the imager pick up an image of the individual, 13 and background, 20, with spectral wavelengths 1.4 to 2.2 microns, which has an image intensifier),
- a second image pickup step to pick up an image of the object positioned in front of the background using wavelengths in an infrared region (see col. 4 lines 16 – 19 and fig 1 – 11 – the camera picks up the image of the individual, 13 and the background, 20, with spectral wavelengths 0.8 to 1.4 microns) and
- an extracting step to extract only the object based on the images picked up by the first and second image pickup steps (see fig 1 – 17, 18, 19' and 20' – the image in 19 is a binary image with extracted image 13').

Art Unit: 2624

Pavidis also discloses a threshold software program to distinguish the human from the background by using human skin color values (see col. 4 lines 35 – 46).

But fails to disclose a surface of the background is formed by an organic dye. O'Meara discloses a surface of the background is formed by a dye (see col. 3 lines 23 – 30). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to include a surface of the background is formed by a dye or any form of dye is because the energy in the form of electromagnetic radiation such as light is direct to the background dye and object will produce distinguishable series of pulse signal showing the location of object and the background area, so one would be able to easily locate the object (see col. 3 lines 31 – 40).

With regards to claim 2, Pavidis discloses an image extraction method as claimed in claim 1, wherein said extracting step extracts the object from the image picked up by the first image pickup step depending on color (see col. 4 lines 20 – 24 and fig 1 – 12 and 17 – the image pick up by camera 12 is use to determine the location of the object – head through color of skin), and extracts the object from the image picked up by the second image pickup step depending on luminance (see col. 4 lines 16 – 19 and fig 1 – 11 – the imager at the lower band is an image intensifier).

With regards to claim 3, Pavidis discloses all of the claim elements / features as discussed above in rejection for claim 1 and incorporated herein by reference, but fails to disclose dye has a color selected from a group consisting of blue-green color, gold

Art Unit: 2624

color and silver color. O'Meara suggest selecting the background color as gray and the color of the object as black. Selecting dye color from group of consisting of blue-green color, gold color and silver color is a matter of choice. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to include Selecting dye color from group of consisting of blue-green color, gold color and silver color is a matter of choice because the energy in the form of electromagnetic radiation such as light is direct to the background dye and object will produce distinguishable series of pulse signal showing the location of object and the background area, so one would be able to easily locate the object.

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pavidis ('260) in view of O'Meara ('771) as applied to claim 1 further in view of Gaynor (US pat no 3,434,835).

Pavidis discloses all of the claim elements / features as discussed above in rejection for claim 1 and incorporated herein by reference, but fails to disclose the organic dye is selected from a group consisting of cyanine organic dyes, phthalocyanine organic dyes, and azo organic dyes. Gaynor discloses a method of extraction method as claimed in claim 1, wherein the organic dye is selected from a group consisting of cyanine organic dyes, phthalocyanine organic dyes, and azo organic dyes (see col. 4 lines 20 – 30). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to include organic dye is selected from a group consisting of

Art Unit: 2624

cyanine organic dyes, phthalocyanine organic dyes, and azo organic dyes because to allow the dye to with stand light radiation to prevent the dye from coming off from the background image, so the dye in the background can last longer.

4. Claims 5 – 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pavidis ('260) in view of Okazaki (US pat no 6,873,713) and O'Meara ('771).

With regards to claim 5, Pavidis discloses an image extraction method comprising

- a first image pickup step to pick up an image of an object positioned in front of a background using wavelengths in a visible light region (see col. 4 lines 20 – 24 and fig 1 – 12 – the imager pick up an image of the individual, 13 and background, 20),
- a second image pickup step to pick up an image of the object positioned in front of the background using wavelengths in an infrared region (see col. 4 lines 16 – 19 and fig 1 – 11 – the camera picks up the image of the individual, 13 and the background, 20) and
- an extracting step to extract only the object based on the images picked up by the first and second image pickup steps (see fig 1 – 17, 18, 19' and 20' – the image in 19 is a binary image with extracted image 13').

But fails to disclose a matching section. Okazaki discloses a matching section to compare the image extracted by the extracting section and registered object images and to output a result of comparison as an authentication result (see col. 3 lines 19 – 33

Art Unit: 2624

– a plurality of images are taken from different views, the first image taken is read as the image taken from first imager and second image taken is read as the image taken from second imager – the average brightness is compared between the first, second and to the registered image). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to include a matching section because to identify the individual to prevent tress passers from entering any secure facility to improve security.

Pavidis also discloses a threshold software program to distinguish the human from the background by using human skin color values (see col. 4 lines 35 – 46).

But fails to disclose a surface of the background is formed by an organic dye. O'Meara discloses a surface of the background is formed by a dye (see col. 3 lines 23 – 30). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to include a surface of the background is formed by a dye or any form of dye is because the energy in the form of electromagnetic radiation such as light is direct to the background dye and object will produce distinguishable series of pulse signal showing the location of object and the background area, so one would be able to easily locate the object (see col. 3 lines 31 – 40).

With regards to claim 6, see the rationale and rejection for claim 2.

With regards to claim 7, see the rationale for claim 5.

Art Unit: 2624

With regards to claim 8, see the rationale and rejection for claim 3.

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pavidis ('260), Okazaki ('713) and O'Meara ('771) as applied to claim 5 further in view of Gaynor (US pat no 3,434,835).

With regards to claim 9, see the rationale and rejection for claim 4.

Conclusion

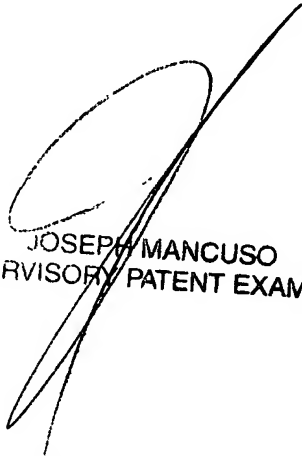
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alex Liew whose telephone number is (571)272-8623. The examiner can normally be reached on 9:30AM - 7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on (571)272-7695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2624

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Alex Liew
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10-24-06


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SUPERVISORY PATENT EXAMINER